

1998 - 99 WINTER SEASON

The winter of 1998-99 was another strange one indeed for all of western and central New York. The Total season snowfall was actually normal or slightly above over all areas...but this masked the fact the the bulk of the winter was actually quite mild and open. There were, however, two periods of severe winter weather...the first two weeks of January, and the early part of March.

The winter began very late, as the mild dry conditions of the autumn of '98 lingered into December. November snows were negligible, and most areas reached the winter solstice with a near-record lack of snow. The pattern then changed however, and colder air crossing the warm lakes resulted in an increasing frequency of Lake effect snow through the Holidays. Winter really roared into the region with the New Year as severe lake snows pummeled areas east and northeast of the lakes (including Buffalo and Watertown) during the first week, and several general snows followed as low pressures moved up a stalled out front during the second week. Most areas had more snow on the ground by the 15th than at any time in the last 22 years. The combination of lake effect and synoptic snows spared no areas with Buffalo and Rochester having their third snowiest January ever and Toronto and Watertown their snowiest ever...this despite the fact that almost all of the snow fell in the first two weeks.

The pattern changed abruptly in mid January though...and mild dry conditions returned for the latter portion of the month and continued right through a very uneventful February. Most areas had bare ground for most of the month of February. But winter had one more shot waiting. Two major synoptic storms brought heavy snows to most of the region on the 4th and again on the 6th. The first storm moved up across east-central New York and brought blizzard conditions to a narrow area centering on the Genesee Valley and metropolitan Rochester. Two feet fell in the city and nearby suburbs. Amounts dropped off quickly to the west and east with Buffalo and Syracuse getting little. Another general storm on the 6th dropped 6-12" everywhere but up to 20" near Rochester again due to enhancement off Lake Ontario. Another storm on the 21-22nd only affected areas east of Rochester with over two feet of heavy wet snow on the Tug Hill. March ended warm and dry.

Total season snowfall topped 200 inches over the Tug Hill with Montague taking the prize at over 300". Snowfall was also quite heavy further north because of the record January. Watertown caught about 100" and even the St. Lawrence valley almost 80". In western New York...highest amounts were over the ridges of Chautauqua County as usual where over 170" fell. Most areas south of Buffalo received well over 100", with Monroe County eastward to Oswego county also topping the century mark. In the Buffalo area, amounts ranged from 120 inches over the South Towns to 80-90 inches in the city, to 60-70 inches in Niagara County. 50-60" fell along the lake Ontario shore of Niagara County west across the Niagara Peninsula with about 60" at Toronto.

Brief monthly summaries follow...

NOVEMBER 1998

November was remarkably dry and mild across the entire region. Snowfall was negligible with monthly totals near record minimums. Most areas had no measurable snow...with only one marginal Lake effect event early on the 21st accounting for all of the meager 1 to 4 inch totals off Lake Erie from southern Erie County southward. East of Lake Ontario...a minor synoptic fall of 1 to 3 inches hit northern Jefferson County on the 7th...and a narrow lake-effect storm on the 21st dropped up to 10" locally on the Tug Hill. This storm was rain at lower elevations. The month was dry too...with most areas well under 2 inches of precipitation total for the month.

DECEMBER 1998

December continued the trend of very mild, dry weather...for the first three weeks...but winter arrived with the solstice and the final ten days featured plenty of cold weather and lake effect snow in favored areas. Monthly totals topped 3 feet across the Tug Hill and over the immediate South Towns of Buffalo as well as on the ridges of Chautauqua County...while only a few inches fell north of Buffalo and over much of the Genesee Valley.

Major Lake snows included up to 10" near Perrysburg and 3-6" east of Rochester on the 17th, a long lasting event from 22-25th which dropped over two feet on the Tug Hill and up to a foot south of Buffalo...and an intense episode on 31st which dropped almost two feet over the Buffalo South Towns while none fell in the city.

JANUARY 1999

In sharp contrast to the very mild autumn and early winter...January roared into our region with some of the most severe winter weather in many years. Snowfall was exceedingly high across the entire region...with nearly all of it falling during the first two weeks. The pattern changed drastically again at mid-month...with a return to very mild and dry conditions for the last two weeks of the month.

Total monthly snowfalls exceeded 60" over a large portion of the area...including much of Erie and Chautauqua counties...and nearly all of the area east of Lake Ontario. Even non lake-effect areas received tremendous snowfalls...with even snow sparse areas such as the Niagara Peninsula and St. Lawrence Valley catching more than 3 feet. The lowest totals were over the mid-Genesee Valley and finger Lakes...but the 20-30 inch totals were double the monthly norm even there. Buffalo and Rochester both had their third snowiest January ever (65 and 49"), while Watertown (75") and Toronto (48") their snowiest ever.

The snowfall was a combination of lake-effect and synoptic (general) snows. The month began with a large storm moving into the Central Great Lakes on the 2nd...burying Chicago and Detroit with near record snows. This system brought only a small amount of snow...but much sleet and freezing rain to our region. The exception was the Toronto area which was smacked with 15" of

JANUARY 1999 (cont'd)

snow. Cold air poured in behind this system though...setting up intense lake effect snows over Buffalo-Niagara and Watertown-St. Lawrence valley region by the 3-4th. These lake snows meandered north and south for the next few days before a general 4 to 8 inches fell everywhere on the 8-9th. More lake-effect followed for the next few days...then a series of synoptic snows brought several inches daily from 12-15th. Northeast enhancement off Lake Ontario brought additional snows to the Rochester area on 13-15th. Another foot blitzed Toronto and especially its lakeshore areas on 15th with lake enhancement on an east wind. By the morning of the 16th, snowdepths averaged two feet across the entire area..with some locations reporting three feet...the most substantial snow cover in 22 years. The pattern then changed and the second half of the month was very mild. The tremendous snowpack melted quickly in two thaws...a minor one on 16-18th and a strong one the following weekend. The thaws were accompanied by little rain...so flooding was minor. The month ended mild with nearly bare ground and no hint of the winter siege of the first two weeks.

FEBRUARY 1999

In a drastic turnaround from the harsh conditions of early January...February was a quiet, mild and dry month across the entire region. Much of the snow from the January storms had already melted by the start of February...then generally mild conditions took care of the rest of it in western areas by mid month. Precipitation was very light...and snowfall well below normal with many areas receiving less than 6" for the month. The greatest totals were a little over a foot over the Tug Hill and in a few isolated spots over Chautauqua and Cattaraugus counties. The only appreciable snow fell on the 7th in most areas with a few inches reported. The month ended with bare ground over most of the area...except for the Tug Hill which had a one to two foot snowpack.

MARCH 1999

After a very mild and dry February, winter roared back into the region during the first week of March with two major snowstorms. The first one, on the 4th, brought record snowfall to the lower Genesee Valley and focused on the Rochester area which received two feet and had blizzard conditions for over six hours. This resulted from an intense storm which moved up across eastern New York. Amounts dropped off rapidly to the west and east though...with just 3 or 4 inches in the Buffalo and Syracuse areas. Another general storm affected all areas on the 6th as a low moved across the Ohio Valley into Pennsylvania. This storm dropped 6 to 12 inches across the entire region...but up to 20" again in the Rochester area as significant lake effect lingered on a northeast wind off Lake Ontario. Dry conditions followed for the next two weeks with cold temperatures slowly moderating. The final major storm of the month was on 21-22nd when a coastal storm brought heavy precipitation to our eastern areas. Over two feet of heavy wet snow fell over the Tug Hill and much of Lewis County...while rain was mixed in at lower elevations.

The monthly snowfall totals were heavy...in fact Rochester had their snowiest March in 99 years with 45 inches. Amounts dropped off sharply to the west...to around 15" in the Buffalo area. Over five feet fell on the Tug Hill. Aside from the three storms though, March was a very sunny month. No appreciable snow fell anywhere in April.

Individual spotter breakdowns follow:

WFO BUFFALO SNOWSPOTTERS NETWORK 1998 - 99 SEASON SNOWFALL

ID	TOWN	NOV	DEC	JAN	FEB	MAR	TOT.
* Estimated							
...NIAGARA COUNTY...							
01	Youngstown	T	2	36	2	10	50
04	Lewiston	T	2	50	2	10	64
05	Wheatfield	T	5	58	4	18	85
06	Lockport	T	7	54	2	21	84
07	Middleport	T	7	37	2	21	67
08	Pendleton	T	3	51	5	14	73
09	N. Tonawanda	T	2	54	3	18	77
10	Lockport	T	3	44	4	24	75
11	N. Tonawanda	T	2	62	4	13	81
12	N. Tonawanda	T	4	53	5	17	79
13	Niagara Falls	T	2	52	2	13	69
14	Lockport	T	3	49	3	17	72
...ORLEANS COUNTY...							
01	Medina	T	5	40	2	9	56
02	Albion		T	7	44	2	2073
04	Lyndonville	T	8	40	2	17	67
05	Lyndonville	T	7	51	1	19	78
07	Lyndonville	T	6	45	2	18*	61*
...MONROE COUNTY...							
01	N. Chili	T	5	36	4	42*	87*
02	Greece	T	8	47	1	41	97
03	Rochester AP	T	10	49	5	45	109
04	Webster	T	9	51	3	39	102
05	Perinton	T	8	47	5	44	104
06	Pittsford	T	4	36	4	39	83
08	Penfield	T	8	45	4	40	97
09	Hamlin	T	9	72	1	50	132
10	Fairport	T	10	50	7	46	113
11	Webster	1	8*	50*	3	24	85*
12	Penfield	T	11	54	4	43	112
13	Wheatland	T	3	34	3	38	78
14	Penfield	T	11	41	4	41	97
15	Brockport	T	8	52	4	45	109
16	Rochester N.	T	8	48	1	40*	97*
17	Hamlin	T	10	57	4	34	105
18	Rochester N.	T	11	54	4	40*	109*

ID	TOWN	NOV	DEC	JAN	FEB	MAR	TOT
...WAYNE COUNTY...							
01	Ontario	T	10	51	4	43	108
02	Sodus	T	22	47	5	31	105
03	Sodus Center	T	16	47	1	25	89
05	Williamson	T	22	65	3	29	119
06	Clyde/Galen	T	11	42	5	33	91
08	No. Rose	T	23	35	3	25*	86*
10	Newark	T	7	37	6	35	85
12	Clyde	T	9	33	5	20	67
14	Palmyra	T	4	42	5	35	86
15	Walworth	T	9	49	4	50	112
16	Palmyra	T	8	40	4	36	88
17	Wolcott	T	24	41	2	25	90
18	Newark	T	7	40	7	33	87
...CAYUGA COUNTY...							
02	FairHaven	T	27	69	2	18	116
...OSWEGO COUNTY...							
01	Lacona	T	12	75	5	27	119
03	Oswego East	T	13	71	6	26	115
04	Oswego SUNY	T	15	70	3	32	120
06	Bennetts Bridge	5	23	83	12	30	153
07	Redfield	6	32	80*	10	50*	178*
09	Fulton	T	35	60	6	28	129
11	Minetto	1	30	69	5	23	128
12	Parish	T	31	73	8	28*	140
13	W. Monroe	1	32	51	8	34	126
14	Palermo	T	30	79	7	31	147
15	Oswego SW	T	22	83	3	23	131
16	Hastings	T	24	66	6	25	121
17	W. Monroe	T	28	45	6	32	111
22	Oswego	1	21	73	7	36	138
...JEFFERSON COUNTY...							
02	Carthage	T	20	65	12	26	123
05	Chaumont	1	7	58	6	25	97
06	Mannsville	T	36	82	5	28*	151*
08	Watertown	T	17	52	6	27	102
09	Wellsley Isld	4	7	40	4	22	77
10	Watertown	2	6	38	6	10	62
12	Adams	T	27	57	8	36	128
13	Clayton	2	8	40	4	22	76
14	Redwood	3	15	45	9	26	98
16	Theresa	3	21	59	5	27	115

ID	TOWN	NOV	DEC	JAN	FEB	MAR	TOT
...LEWIS COUNTY...							
01	Hooker	4	31	95	20	61	210
03	Montague	9	63	149	17	84	322
04	Lowville	T	18	46	4	32	100
05	Turin	T	36	80	10	63	189
06	Highmarket	8	36	90	9	59	202
07	Castorland	1	44	56	6*	45*	152*
08	N. Osceola	16	37	90	13	63	220
...ERIE COUNTY...							
01	Grand Island	T	2	54	2	9	67
02	Tonawanda Twp.	T	3	56	5	13	78
03	Kenmore	T	3	54	5	16	78
04	Buffalo-W. Side	T	8	59	5	13	85
06	Cheektowaga-NWS	T	12	65	7	16	100
07	Alden-Millgrove	T	16	62	7	14	99
08	Elma	T	19	63	8	23	113
09	Alden	T	25	66	7	21	119
11	W. Seneca	T	20	71	6	19	116
12	E. Aurora	1	39	90	8	26	164
13	Hamburg	T	31	59	4	14	108
14	Hamburg	T	37	115	4	21	177
15	N. Boston	T	43	85	8	18	154
16	Eden	2	38	75	9	19	143
17	Boston	2	28	70	6	23	129
18	Colden	3	25	74	7	23*	132*
19	Colden	3	21	76	10	24	134
20	Collins	1	23	81	3	15	123
21	Springville	3	20	68	6	29*	126
22	Yorkshire	6	41	70	11	36	164
23	Amherst	T	5	56	3	8	72
25	Clarence	T	5	57	5	15	82
26	Cheektowaga	T	11	55	7	17	90
27	W. Seneca	T	28	67	7	17	119
29	Alden	1	26	66	6	14	113
31	Colden	3	38	69	5	22	137
32	Amherst	T	7	66	7	16	96
35	Angola	T	24	60	5	14*	103*
...GENESEE COUNTY...							
01	Batavia	T	7	60	5	30	102
03	Darien Ctr.	2	18	48	5	21	94
05	Byron	T	1	41	5	32	79
06	Pavilion	T	7	36	3	11	57
07	Pavilion	T	4	41	4	26	75
08	Alexander	T	6	39	2	19	66
09	Batavia	T	9	44	3	27*	83*

ID	TOWN	NOV	DEC	JAN	FEB	MAR	TOT
10	Leroy	T	5	42	6	26	79
13	Corfu	T	10	57	6	22	95
15	Batavia	T	11	55*	2	26	93*

...WYOMING COUNTY...

01	Strykersville	T	21	57	5	23	106
02	Bennington	2	9	65	6	28	110
03	Warsaw	1	19	72	14	28	134
04	Portageville	T	4	43	5	34	86
05	Cowelsville	2	19	59	5	31	116
06	Arcade	3	29	87	13	40	172
07	Perry	1	14	45	9	26	95
08	Varysburg	3	21	71	6	27*	128*
09	Bennington	3	17	51	5	22	98
10	Strykersville	1	27	59	9	27	123
13	Warsaw	T	9	43	5	22	79

...LIVINGSTON COUNTY...

01	Avon	T	2	24	3	25	54
02	Mt. Morris	T	2	28	5	21	56
03	Dansville	T	4	23	6	18	51
04	Springwater	T	12	27	12	30	81
06	Nunda	3	10	55	16	47	131
07	Geneseo	T	7	26	6	24	63
08	Linwood	T	4	31	1	15	51
09	Mt. Morris	T	7	45	3	30	85
10	Springwater	T	15	35	14	31	95
11	Geneseo	T	3	33	9	33	78
12	Dansville	T	3	45	11	29	88
13	Scottsburg	T	9	42	12*	35*	98*
14	Conesus	T	6	36	7	35*	84*
16	Geneseo	T	3	35	5	30	73
17	Mt. Morris	T	5	30	5	32	72
18	Mt. Morris	T	2	34	4	25	65

...ONTARIO COUNTY...

01	Victor	T	4	33	6	36	79
03	Honeoye Lake	T	2	24	11	32	69
05	Geneva	T	3	20	8	24	55
07	Bloomfield	T	6	26	9	32	73
08	Canandaigua	T	5	32	9	33	79
11	Honeoye	T	6	39	10	30*	85*
13	Canandaigua	T	4	29	7	35	75
15	Bristol	T	5	46	11	40	102
16	Shortsville	T	5	34	4	31	74

ID	TOWN	NOV	DEC	JAN	FEB	MAR	TOT
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...CHAUTAUQUA COUNTY...

02	Fredonia	T	15	55	5	19	94
03	Westfield	1	14	32	9	13	69
04	Sinclairville	4	27	66	15	30	142
05	Sherman	2	37	83	13	35	170
07	Silver Creek	T	20	63	2	10	95
12	Frewsburg	T	9	44	12	23	88
13	Poland	2	18	41	10*	24*	95*
17	Jamestown	1	15	34	8	21	79
19	Arkwright	3	45	79	13	26	166
20	Jamestown	1	11	47	8	32	99
21	Ashville	2	12	36	4	27	81
22	Dunkirk	1	26	51	4	16	98
23	Dunkirk	T	24	54	4*	16*	98*
24	Fredonia	1	17	52	6	17	93
27	Jamestown	2	15	50	9	23	99
28	Jamestown	1	14	53	4	25	97
30	Jamestown	2	12	52	6	30	102
31	Ellington	4	27	49	11	28	119
32	Stockton	3	53	86	15	47	204
33	Cassadaga	2	37	67	12	35	153

...CATTARAUGUS COUNTY...

02	New Albion	2	13	30	7	22	74
03	Little Valley	1	18	45	12	27	103
04	Franklinville	2	13	52	8	35	110
05	Salamanca	1	14	33	7	24	79
06	Olean	T	10	36	4	20	70
07	Perrysburg	2	42	88	16	39	187
08	S. Dayton	3	44	75	16	30	168
09	Little Valley	2	21	52	10	30	116
10	Perrysburg	2	14	60	7	21	104
11	Cattaraugus	1	13	50	6	19	89
12	Randolph	1	13	43	9	29	95
14	N. Otto	2	19	55	9	20	105
15	Ellicottville	3	17	71	12	42	145
17	Allegheny Park	1	10	23	7	19	60

ID	TOWN	NOV	DEC	JAN	FEB	MAR	TOT
...ALLEGANY COUNTY...							
01	Rushford	T	9	37	5	18	69
02	Angelica	1	5	29	8	26	68
03	Friendship	1	6	36	6	26	74
04	Bolivar	1	6	42	5	19	72
05	Alfred	T	7	38	12	26	83
07	Whitesville	T	1	24	4	17	46
08	Wellsville	T	5	40	9	15	69
...ST. LAWRENCE COUNTY...							
01	Gouverneur	4	15	68	7	43	137
02	Star Lake	5	19	52	4	52	132
03	Edwards	4	14	59	10	44	131
04	Richville	3	8	64	4	32	111
...ONTARIO CANADA...							
01	Vineland	T	2	38	5	11	56
02	Fort Erie	T	4	58	5	15	82
03	Niagara-on-Lake	T	2	42	2	12	58
04	Niagara Falls	T	2	31	2	10	45
05	Toronto-Downtown	T	2	48	2	7	59
06	Toronto-East	T	2	47	2	7	58